

PRELIMINARY
Health
Assessment
for

3C
16871

EASTERN DIVERSIFIED METALS

RUSHTOWNSHIP, PENNSYLVANIA

SEPTEMBER 1, 1988

ORIGINAL
(Red)

Agency for Toxic Substances and Disease Registry
U.S. Public Health Service

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THE ATSDR HEALTH ASSESSMENT: A NOTE OF EXPLANATION

Section 104(i)(7)(A) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, states "...the term 'health assessment' shall include preliminary assessments of potential risks to human health posed by individual sites and facilities, based on such factors as the nature and extent of contamination, the existence of potential pathways of human exposure (including ground or surface water contamination, air emissions, and food chain contamination), the size and potential susceptibility of the community within the likely pathways of exposure, the comparison of expected human exposure levels to the short-term and long-term health effects associated with identified hazardous substances and any available recommended exposure or tolerance limits for such hazardous substances, and the comparison of existing morbidity and mortality data on diseases that may be associated with the observed levels of exposure. The Administrator of ATSDR shall use appropriate data, risk assessments, risk evaluations and studies available from the Administrator of EPA."

In accordance with the CERCLA section cited, ATSDR has conducted this preliminary health assessment on the data in the site summary form. Additional health assessments may be conducted for this site as more information becomes available to ATSDR.

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PRELIMINARY HEALTH ASSESSMENT
EASTERN DIVERSIFIED METALS
RUSH TOWNSHIP, PENNSYLVANIA
SEPTEMBER 1, 1988

Prepared by:
Office of Health Assessment
Agency for Toxic Substances and Disease Registry (ATSDR)

Background

The Eastern Diversified Metals (EDM) Site is listed by the U.S. Environmental Protection Agency (EPA) on the National Priorities List (NPL). The former 25 acre wire recycling site is located in Rush Township (Schuylkill County), Pennsylvania. A pile of waste "fluff" approximately 90 million cubic feet (157 million pounds) exists on-site. In addition an unknown quantity of sludge from an on-site sewage treatment facility was deposited on top of "fluff" pile. Remedial actions have occurred. Access to the site is restricted.

The following documents were reviewed by ATSDR: (1) Preliminary Assessment, November 26, 1984, (2) the Hazard Ranking Package, June 19, 1985, (3) Remedial Investigation/Feasibility Study (RI/FS) Work Plan, March 18, 1988, and (4) Site Investigation, September 19, 1985. These documents form the basis of this Preliminary Health Assessment.

Environmental Contamination and Physical Hazards

Preliminary on-site sediment sampling results have identified polychlorinated biphenyls (PCB's) (Aroclor 1016, 26 ppm and Aroclor 1260 56 ppm), bis(2-ethylhexyl)phthalate (DEHP) (1,899 ppm), and hexachlorobenzene (20 ppm). Lead (3 ppm), barium (2 ppm), phenols (900 ppb), and benzene (115 ppb) were identified in on-site leachate samples. In addition, mercury (0.32 ppb) was identified in on-site groundwater.

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Preliminary off-site sediment sampling results identified 1,1,1 trichloroethane (12 ppb), benzene (2 ppm), PCB's (Aroclor 1260, 8 ppm and Aroclor 1016, 17 ppm), and DEHP (23 ppm). No other sampling information was reported. Physical hazards were not reported.

Potential Environmental and Human Exposure Pathways

Potential environmental pathways include migration of contaminated groundwater, surface water, leachate from waste piles, soils and sediment, and volatilization of contaminants in ambient air. In addition, bioaccumulation of contaminants in fish and water fowl may be other environmental pathways.

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Potential human exposure pathways include ingestion and direct contact with groundwater, surface water, soil and sediment, and possible ingestion of bioaccumulated contaminants in the food chain. In addition, inhalation of volatilized contaminants or contaminants entrained in air are other sources for human exposure.

Demographics

There are about 1,620 people living within a one-mile radius of the site. The distance from EDM to the nearest residence is approximately 1,000 feet. A United Parcel Service Building is adjacent to EDM. There is uncertainty as to the number of workers or whether they are on public or private water.

Evaluation and Discussion

On-site soil is contaminated but off-site is reported not to be contaminated. However, sampling data corroborating the absence of site-related contaminants off-site were not reported. There is also concern about site-related contaminants leaching their contents into area groundwater.

There are potable private wells within the vicinity of EDM. Well water sampling for site-related contaminants has not been performed. It has been reported that private well water sampling is proposed for 1989. Municipal wells do not exist within the vicinity of the site. The Village of Hometown receives its water supply from the Still Creek Reservoir located 2 to 3 miles north of EDM.

An intermittent tributary to the Little Schuylkill River (LSR) is located 100 feet south and drains to the west of the site. The tributary flows approximately 1000 feet to LSR. LSR is a potable water source and is used for recreational activities (e.g., fishing, swimming). An aquatic bioassay has been proposed. It has been reported that surface water is too acidic to support fish. No further information has been provided.

There has been a history of odor complaints regarding EDM. On-site air sampling measurements (January 30, and April 12, 1984) demonstrated that volatilization of site-related contaminants has and/or is occurring. It was reported that VOC's were not measured above background levels. However, air sampling results were not reported. ATSDR has prepared, or will prepare, Toxicological Profiles on the site contaminants noted above.

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Conclusions and Recommendations

Based on available information, this site is considered to be of public health concern because of the risk to human health caused by the likelihood of human exposure to hazardous substances. Exposure to contaminated groundwater, surface water, soils and sediment through direct contact and ingestion is possible. Although it has been reported that conditions of area surface water are not adequate to support proliferation of fish, nevertheless, ingestion of fish and other aquatic organisms that bioaccumulate site-related contaminants is a distinct possibility.

Future investigations of this site should include a characterization of the site and site contaminants, and a characterization of the hydrogeology of the area. Further environmental characterization and sampling of the site and impacted off-site areas during the Remedial Investigation and Feasibility Study (RI/FS) should be designed to address the environmental and human exposure pathways discussed above. When additional information and data, such as the completed RI/FS, are available, such material will form the basis for further assessment by ATSDR, as warranted by site-specific public health issues.

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